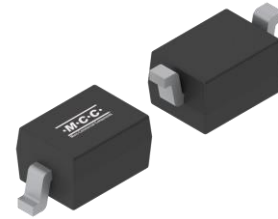


Features

- Standard Vz Tolerance is $\pm 5\%$
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes



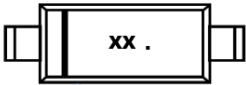
Mechanical Data

- Package: SOD-323 package name
- Moisture Sensitivity: Level 1, per J-STD-020
- Halogen Free. "Green" Device ^(Note1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish & RoHS Compliant
- Weight: 0.004 g (approximate)



SOD-323

Body Marking and Pin Layout

Body Marking	Internal structure
 XX: Device Marking Code¹ Bar: Cathode Pin Dot (optional): Manufacturing site marking ¹ Refer to the Marking Code for the specific device code.	 1 Cathode 2 Anode

Ordering Information

Product Name	Reel Size	Packing Type	Qty/Reel
BZT52C2V0S-TP THRU BZT52C75S-TP	7"	Tape & Reel	3,000
BZT52C2V0S -13P THRU BZT52C75S -13P	13"	Tape & Reel	10,000

For packaging details, visit our website at <https://www.mccsemi.com/Package/List>

Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation ^(Note2)	P _D	200	mW
Maximum Instantaneous Forward Voltage @ I _F = 10mA	V _F	0.9	V
Operating Junction Temperature Range	T _J	-55 to 150	°C
Storage Temperature Range	T _{STG}	-55 to 150	°C

Thermal characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Thermal Resistance from Junction to Ambient ^(Note 2)	R _{θJA}	625	°C/W

Notes:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Mounted on PCB.

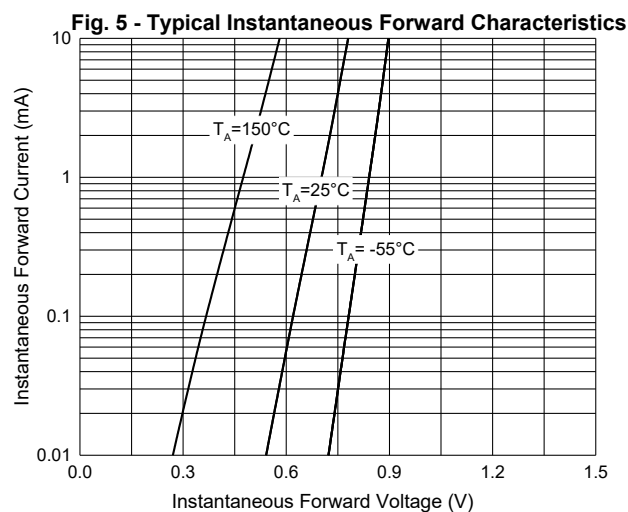
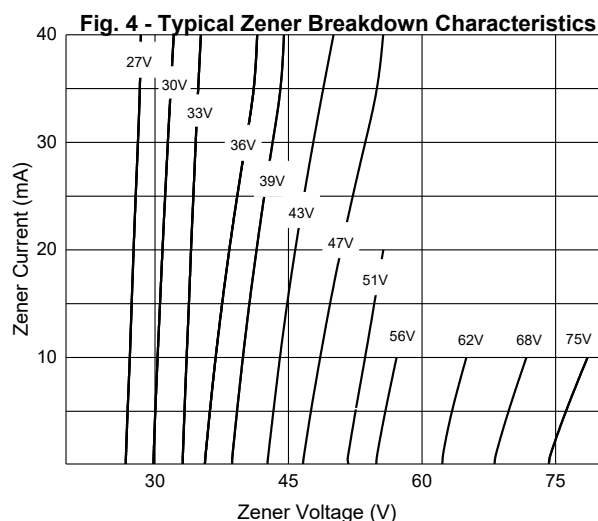
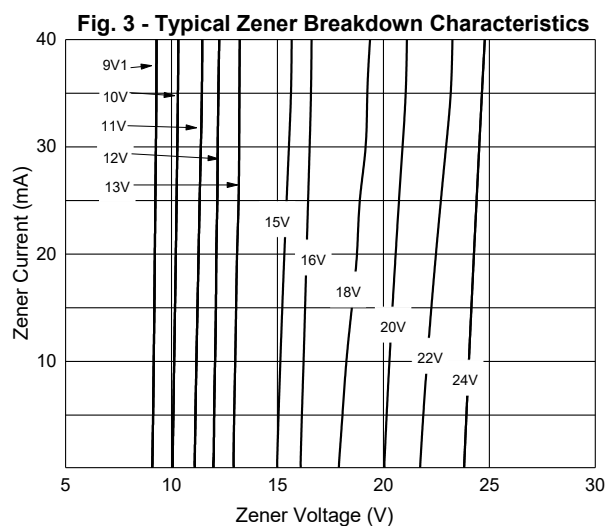
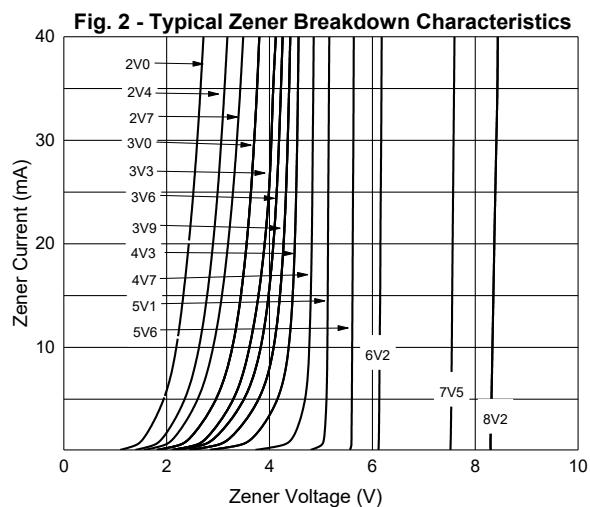
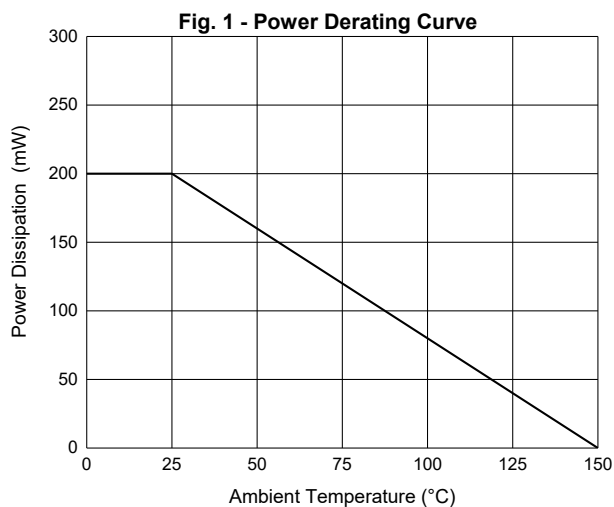
Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number	Zener Voltage ^(Note 3)			Test Current		Maximum Dynamic Impedance		Maximum Reverse Leakage Current		Typical Temperature Coefficient		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	I _{ZK}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _R	V _R	S _Z @ I _{ZT}		
	Min(V)	Typ(V)	Max(V)	mA	mA	Ω	Ω	μA	V	Min (mV/°C)	Max (mV/°C)	
BZT52C2V0S	1.9	2	2.1	5	1	100	600	90	1	-3.5	0	WY
BZT52C2V4S	2.28	2.4	2.56	5	1	100	600	50	1	-3.5	0	WX
BZT52C2V7S	2.5	2.7	2.9	5	1	100	600	20	1	-3.5	0	W1
BZT52C3V0S	2.8	3	3.2	5	1	95	600	10	1	-3.5	0	W2
BZT52C3V3S	3.1	3.3	3.5	5	1	95	600	5	1	-3.5	0	W3
BZT52C3V6S	3.4	3.6	3.8	5	1	90	600	5	1	-3.5	0	W4
BZT52C3V9S	3.7	3.9	4.1	5	1	90	600	3	1	-3.5	0	W5
BZT52C4V3S	4	4.3	4.6	5	1	90	600	3	1	-3.5	0	W6
BZT52C4V7S	4.4	4.7	5	5	1	80	500	3	2	-3.5	0.2	W7
BZT52C5V1S	4.8	5.1	5.4	5	1	60	480	2	2	-2.7	1.2	W8
BZT52C5V6S	5.2	5.6	6	5	1	40	400	1	2	-2	2.5	W9
BZT52C6V2S	5.8	6.2	6.6	5	1	10	150	3	4	0.4	3.7	WA
BZT52C6V8S	6.4	6.8	7.2	5	1	15	80	2	4	1.2	4.5	WB
BZT52C7V5S	7	7.5	7.9	5	1	15	80	1	5	2.5	5.3	WC
BZT52C8V2S	7.7	8.2	8.7	5	1	15	80	0.7	5	3.2	6.2	WD
BZT52C9V1S	8.5	9.1	9.6	5	1	15	100	0.5	6	3.8	7	WE
BZT52C10S	9.4	10	10.6	5	1	20	150	0.2	7	4.5	8	WF
BZT52C11S	10.4	11	11.6	5	1	20	150	0.1	8	5.4	9	WG
BZT52C12S	11.4	12	12.7	5	1	25	150	0.1	8	6	10	WH
BZT52C13S	12.4	13	14.1	5	1	30	170	0.1	8	7	11	WI
BZT52C15S	13.8	15	15.6	5	1	30	200	0.1	10.5	9.2	13	WJ
BZT52C16S	15.3	16	17.1	5	1	40	200	0.1	11.2	10.4	14	WK
BZT52C18S	16.8	18	19.1	5	1	45	225	0.1	12.6	12.4	16	WL
BZT52C20S	18.8	20	21.2	5	1	55	225	0.1	14	14.4	18	WM
BZT52C22S	20.8	22	23.3	5	1	55	250	0.1	15.4	16.4	20	WN
BZT52C24S	22.8	24	25.6	5	1	70	250	0.1	16.8	18.4	22	WO
BZT52C27S	25.1	27	28.9	2	0.5	80	300	0.1	18.9	21.4	25.3	WP
BZT52C30S	28	30	32	2	0.5	80	300	0.1	21	24.4	29.4	WQ
BZT52C33S	31	33	35	2	0.5	80	325	0.1	23.1	27.4	33.4	WR
BZT52C36S	34	36	38	2	0.5	90	350	0.1	25.2	30.4	37.4	WS
BZT52C39S	37	39	41	2	0.5	130	350	0.1	27.3	33.4	41.2	WT
BZT52C43S	40	43	46	2	0.5	100	700	0.1	32	37.6	46.6	WU
BZT52C47S	44	47	50	2	0.5	100	750	0.1	35	46	51.8	WV
BZT52C51S	48	51	54	2	0.5	100	750	0.1	38	46.6	51.2	WW
BZT52C56S	53	56	59	2	0.5	200	400	0.05	39.2	52.2	63.8	X1
BZT52C62S	58	62	66	2	0.5	215	450	0.05	43.4	58.8	71.6	X8
BZT52C68S	64	68	72	2	0.5	240	475	0.05	47.6	65.6	79.8	X9
BZT52C75S	70	75	79	2	0.5	255	500	0.05	52.5	73.4	88.6	X10

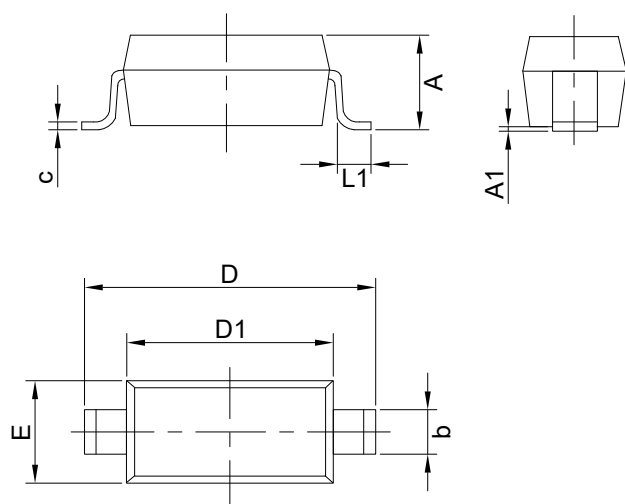
Notes:

3. Short-duration test pulses are used to minimize the self-heating effect.

Curve Characteristics



Package Outline

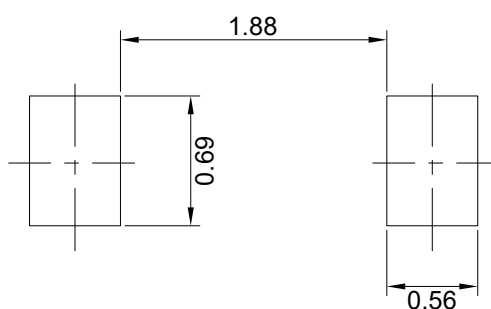


DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.045	0.80	1.15*	Note 1
A1	0.000	0.006	0.00	0.15	
b	0.010	0.016	0.25	0.40	
c	0.003	0.010	0.08	0.25	
D	0.090	0.107	2.30	2.70	
D1	0.063	0.071	1.60	1.80	
E	0.045	0.055	1.15	1.40	
L1	0.004	0.018	0.10	0.45	

Notes:

1. Dimension A for products from manufacturing site VN is controlled at max 1.10 mm.

Suggested Pad Layout (Unit:mm)



Notes:

1. The suggested land pattern dimensions have been provided for reference only.
2. For further information, please refer to document IPC-7351A.

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